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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,982	02/26/2004	Yasutaka Ishii	3273-0184P	2642

2292 7590 12/29/2006  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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OH, TAYLOR V

ART UNIT	PAPER NUMBER
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1625

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/29/2006	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 12/29/2006.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/785,982	<b>Applicant(s)</b> ISHII ET AL.	
	<b>Examiner</b> Taylor Victor Oh	<b>Art Unit</b> 1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Final Rejection***

**The Status of Claims**

Claims 1-3 are pending.

Claims 1-3 have been rejected.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The rejection of Claims 1-3 under 35 U.S.C. 112, second paragraph, has been withdrawn due to the modification made in the amendment.

**Claim Rejections - 35 USC § 103**

1. Applicants' argument filed 10/10/06 have been fully considered but they are not persuasive.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**The rejection of Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asahi et al (US 5,760,288) in view of Ichikawa et al (US 3,920,734).**

The rejection of Claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Asahi et al (US 5,760,288) in view of Ichikawa et al (US 3,920,734) has been maintained with the reasons of the record on 7/7/06.

#### **Applicants' Argument**

2. Applicants argue the following issues:

- a. Ashi uses an aromatic compound having an alkyl group or a partially oxidized alkyl group as a substrate, whereas the current invention uses an aromatic compound having at least one hydrogen attached to the aromatic ring as a substrate ;
- b. Ashi uses an oxidation of an alkyl group of the aromatic compound, whereas the current invention uses carbon monoxide in the carboxylation, thereby differing each other regarding their processes;
- c. Ichikawa uses a palladium carboxylate and Ashi uses a transition metal incorporated into a heteropoly-acid skeleton ; therefore, there is nothing in common with respect to the catalyst;

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- d. Ichikawa illustrates some organic solvents as the preferable medium, whereas Ashi uses a solution composed mainly of water; therefore, there is nothing in common with respect to the solvent.

Applicants' arguments have been noted, but the arguments are not persuasive.

First, regarding the first argument, the Examiner has noted applicants' argument. However, the secondary prior art, Ichikawa, does teach that, regardless of how each substrate of the alkyl group or the hydrogen is attached to the aromatic compound, either of them does not impair the oxidation process as described in the passages (see col. 2, lines 41-45). Ichikawa et al is directed to the process for producing an aromatic carboxylic acid by reacting an aromatic compound with carbon monoxide and molecular oxygen in the presence of a catalyst containing a palladium carboxylate (see col. 1, lines 14-11). Therefore, applicants' argument is irrelevant to the issue.

Second, regarding the second argument, the Examiner has noted applicants' argument. However, the secondary prior art, Ichikawa, does teach that the equivalency between the method of using carbon monoxide and oxygen and that of using an oxygen containing gas in the presence of a catalyst containing platinum chloride in introducing the carboxyl group to the aromatics (see from col. 1, line 61 to col. 2, line 2). Therefore, applicants' argument is irrelevant to the issue.

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Third, regarding the third argument, the Examiner has noted applicants' argument. However, as applicants have indicated that, Ashi does use the transition metal incorporated into a heteropoly-acid skeleton and the palladium is belonged to one of the transition metals (group VIII metals) in the periodic table. Therefore, on the contrary to applicants' argument, both prior art processes are closely related to each other with respect to sharing the transition metal during their respective processes. Thus, applicants' argument is irrelevant to the issue.

Fourth, regarding the fourth argument, the Examiner has noted applicants' argument. However Ashi does mention that the medium contains a water-soluble organic solvent (see col. 5, line 1); similarly, Ichikawa point out the use of acetic acid which may contain water. Therefore, both processes may conduct the reaction process in a similar medium condition. Thus, applicants' argument is irrelevant to the issue.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas McKenzie can be reached on 571-272-0670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Taylor Victor Oh, MSD,LAC  
Primary Examiner  
Art Unit : 1625

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12/22/06